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ABSTRACT

College students as young adults are sexually active. Authorities on Acquired Immune Deficiency Syndrome (AIDS) are concerned about the transmission of Human Immunodeficiency Virus (HIV) in college students since students are sexually active but do not perceive precautions against AIDS as necessary for themselves. This study examined what college student subjects (N=180) knew or did not know about AIDS and differences or changes in sexual behavior of subjects after they learned of AIDS. Knowledge about AIDS, time orientation, and sexually risky behavior patterns were assessed. Students exhibited a high degree of AIDS knowledge. Time orientation was insignificant for all variables. Approximately 80 percent of students were sexually active with 29 percent of these having changed toward safer sexual behaviors. However, to the degree changes were made, the changes in behavior before and after learning about AIDS could not be accounted for or predicted by the independent variables. Older students and males as groups both had a higher knowledge of AIDS. It is encouraging that at least some students have altered their sexually risky behavior. If education is to be used as a tool in preventing further infection rates of HIV, then it cannot be used alone as an explanation or as a panacea for changing behavior. A more complex approach is needed which focuses on different developmental groups and which is appropriate for changing sexual behavior in particular. (ABL)

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# RELATIONSHIPS BETWEEN TIME ORIENTATION, KNOWLEDGE OF AIDS, AND SELF-REPORTED SEXUAL BEHAVIORAL CHANGES IN COLLEGE STUDENTS

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PRESENTED AT THE EASTERN PSYCHOLOGICAL ASSOCIATION
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THIS STUDY WAS CONDUCTED TO EXAMINE THE EFFECTS EDUCATIONAL INFORMATION HAD ON CHANGING THE SEXUAL BEHAVIOR OF COLLEGE STUDENTS. HAVING WORKED WITH HIV POSITIVE AND PERSONS WITH AIDS IN A COUNSELING SETTING AND IN A COMMUNITY SUPPORT GROUP, I WAS EXPOSED TO THE AFTERMATH OF HIV INFECTION. SEEING ITS DESTRUCTION, I ASSUMED, SOMEWHAT DELUSIONALLY, THAT IF STUDENTS KNEW, IF THEY UNDERSTOOD, THE CONSEQUENCES OF AIDS, THEN CERTAINLY THEY WOULD CHANGE THEIR SEXUAL BEHAVIOR TO PUT THEMSELVES AT LOW RISK FOR AIDS. THIS WAS NOT WHAT I FOUND THROUGH THIS STUDY. STUDENTS ARE VERY KNOWLEDGEABLE ABOUT AIDS, BUT THEY PERCEIVE THEIR COLLEGE STATUS AS PROHIBITING THEM FROM A LETHAL DISEASE.

COLLEGE STUDENTS AS YOUNG ADULTS ARE SEXUALLY ACTIVE. ACCORDING TO STATISTICS SUCH AS THOSE REPORTED BY ZELNICK AND KANTNER (1980) IT IS OBVIOUS THAT AMERICAN YOUTHS ARE EXTREMELY SEXUALLY ACTIVE. THE PERCEIVED INDEPENDENCE ASSOCIATED WITH COLLEGE GIVES STUDENTS THE OPPORTUNITY TO EXPLORE AND EXPERIMENT WITH A VARIETY OF NEW BEHAVIORS; SEXUAL BEHAVIOR IS ONE ARENA WHEREIN EXPLORATION IS ANTICIPATED BY STUDENTS. CHICKERING (1969) POSITED SEXUALITY WAS ONE OF SEVERAL PREOCCUPYING EMOTIONS THAT STUDENTS LEARN TO MANAGE DEVELOPMENTALLY THROUGH COLLEGE. THE PREOCCUPATION WITH SEXUAL ISSUES CAN BE FOUND ELSEWHERE IN THE LITERATURE (Sherwin and Corbett, 1981), OR BY WALKING THROUGH ANY COLLEGE RESIDENCE HALL ON A RANDOM FRIDAY EVENING.

COLLEGE STUDENTS TODAY EXIST AND BEHAVE IN A SOCIETY LABELED CONSERVATIVE. ATTITUDES ON SEXUAL ISSUES REFLECT CONSERVATISM (Spees, 1987), BUT THEIR BEHAVIOR DOES NOT (Sherwin and Corbett, 1981; Spees, 1987; Young, 1980; Earle and Perricone, 1986). SOME DIFFERENCES EXIST BETWEEN BLACK AND WHITE STUDENTS. BLACK STUDENTS ARE MORE LIKELY TO BEGIN SEXUAL INTERCOURSE AT AN EARLIER AGE THAN ARE THEIR WHITE PEERS, WHEREAS WHITE STUDENTS, ESPECIALLY THE MALES,

ARE MORE LIKELY TO REPORT HIGHER MASTURBATORY FREQUENCIES. THERE ARE MORE SIMILARITIES THAN DIFFERENCES, HOWEVER. STUDENTS ENGAGE IN ORAL, ANAL AND VAGINAL INTERCOURSE WITH GREAT FREQUENCIES. RESEARCH ON CONTRACEPTION SUGGESTS IN MANY SEXUAL EXPERIENCES PARTNERS DO NOT USE BIRTH CONTROL, DO NOT USE IT PROPERLY, OR USE IT TO AVOID SOMETHING (LIKE A SEXUALLY TRANSMITTED DISEASE) RATHER THAN AS PART OF LOVE MAKING (Brown, 1984; Fabes and Strouse, 1987; Kallen, Stephenson, and Doughty, 1983).

THE USE OF CONDOMS IS OF PARTICULAR IMPORTANCE IN AN ERA WHERE AIDS IS PART OF EVERYDAY LANGUAGE AND DAILY NEWS BROADCASTS (Goldsmith, 1987). SOCIETY SANCTIONS CONTRACEPTIVE USE POSITIVELY ONLY AMONG MARRIED COUPLES. SANCTIONS FOR CONTRACEPTIVE USE AIMED AT TEENAGERS ARE PUNITIVE IN NATURE IN THAT THEY ARE EMPLOYED TO AVOID A PUNISHMENT (PREGNANCY OR A VENEREAL DISEASE). IT SEEMS LIKELY THAT IF AMERICAN SANCTIONS WERE MORE POSITIVE FOR CONTRACEPTIVE USE, TEENAGERS AND YOUNG ADULTS WOULD BE APT TO USE THEM APPROPRIATELY.

AIDS EDUCATION IN SOME FORM IS PRESENT ON MANY IF NOT MOST COLLEGE CAMPUSES. RESOURCES EVEN EXIST AS GUIDELINES FOR HOW INSTITUTIONS OF HIGHER EDUCATION CAN EFFECTIVELY AND LEGALLY CONFRONT CASES OF STUDENTS, STAFF AND FACULTY WHO HAVE AIDS, AIDS-RELATED COMPLEX, OR SEROPOSITIVE TEST RESULTS (Keeling, 1986). GUIDELINES ALSO EXIST FOR DISCRIMINATION AGAINST THOSE WHO ARE INFECTED WITH THE HUMAN IMMUNODEFICIENCY VIRUS AT ANY STAGE OF ITS DEVELOPMENT.

AUTHORITIES ON AIDS ARE CONCERNED ABOUT THE TRANSMISSION OF HIV, THE VIRUS ASSOCIATED WITH AND BELIEVED TO CAUSE AIDS, ON COLLEGE STUDENT POPULATIONS. STUDENTS ARE SEXUALLY ACTIVE YET DO NOT PERCEIVE PRECAUTIONS AGAINST AIDS AS NECESSARY IN THEIR OWN BEHAVIOR. A NEWSWEEK ON CAMPUS (1987) POLL REPORTED STUDENTS WERE NOT PRACTICING SAFER SEXUAL BEHAVIORS. STUDENTS IN THIS SAMPLE BELIEVED AIDS WAS TOO FAR REMOVED FROM THEIR OWN SEXUALITY. FOR THIS SAMPLE, AIDS WAS FOUND TO BE AS REMOTE A THREAT AS WAS NUCLEAR WAR. AUTHORITIES BELIEVE MANY COLLEGE STUDENTS WILL CONTRACT HIV DURING THE COLLEGE YEARS, BUT MANIFESTATIONS OF THE CONTAGION WILL NOT APPEAR UNTIL STUDENTS HAVE GRADUATED FROM OR LEFT THE COLLEGE ENVIRONMENT.

THIS MAY BE A LIKELY PREDICTION SINCE MANY STUDENTS IN COLLEGE DIET AND EXERCISE TO REMAIN HEALTHY AND THE VIRUS MAY LAY DORMANT UNTIL THE IMMUNE SYSTEM IS NATURALLY WEAKENED.

OF THE RESEARCH DATA THAT DO EXIST ON AIDS' KNOWLEDGE, PERCEPTIONS AND BEHAVIORS OF PEOPLE IN THE UNITED STATES, MOST SAMPLES CONSIST OF HIGH SCHOOL AND COLLEGE STUDENTS (DiClemente, Zorn, and Temoshok, 1986; Price, Desmond, and Kukulka, 1985; Royse, DHooper, and Hatch, 1987) ALTHOUGH SOME OTHERS EXIST (Bausell, Damrosch, Parks, and Soeken, 1986; Mortan, 1986). THESE DESCRIPTIVE DATA CONCENTRATE ON EITHER PERCEPTIONS/BELIEFS OR KNOWLEDGE ABOUT AIDS AND DO NOT SPECIFY THE SEXUAL BEHAVIORS OF QUESTIONNAIRE PARTICIPANTS. DIFFERENT DATA ON THE SEXUAL BEHAVIOR OF ADOLESCENTS AND YOUNG ADULTS ALSO EXIST (Belcastro, 1985; Carroll, Volk, and Hyde, 1986; Spees, 1987), HOWEVER KNOWLEDGE OF AIDS FROM THESE SAMPLES DOES NOT EXIST. THERE IS A NEED, THEREFORE, TO COLLECT BOTH KINDS OF DATA FROM THE SAME SUBJECTS IN ORDER TO BEGIN TO LEARN WHETHER KNOWLEDGE OF AIDS AFFECTS THE ACTUAL BEHAVIOR OF YOUNG ADULTS.

THE PURPOSE OF THIS STUDY WAS TO COLLECT DATA ON WHAT SUBJECTS KNEW OR DID NOT KNOW ABOUT AIDS AND ON DIFFERENCES OR CHANGES IN THE SEXUAL BEHAVIOR OF THE SAME SUBJECTS BEFORE AND AFTER THEY LEARNED OF AIDS. AT THE TIME THESE SUBJECTS WERE SAMPLED, AN INVENTORY ON AIDS COULD NOT BE FOUND THAT HAD BEEN PSYCHOMETRICALLY TESTED. QUESTION CONTENTS WERE TAKEN FROM A POPULAR QUESTIONNAIRE REPORTED IN THE LITERATURE (DiClemente, et al, 1986). SINCE NO INTERNAL CONSISTENCIES WERE AVAILABLE ON THE QUESTIONNAIRE ITEMS, IT SEEMED APPROPRIATE TO UPDATE OR CHANGE SOME ITEMS. SUBJECTS RESPONDED TO EACH ITEM BY ANSWERING EITHER "TRUE," "FALSE," OR "DON'T KNOW." KNOWLEDGE OF AIDS WAS ASSESSED BY THE PERCENTAGE OF EITHER CORRECTLY-IDENTIFIED TRUE OR FALSE RESPONSES.

SUBJECTS WERE ALSO GIVEN AN INVENTORY WHICH ASSESSES TIME ORIENTATION. THE STANFORD TIME PERSPECTIVE INVENTORY DIFFERENTIATES PERSONS WHO FUNCTION WITH AN ORIENTATION TOWARDS THE FUTURE FROM ONE THAT IS WRAPPED UP IN THE HERE AND NOW. IT WAS BELIEVED SUBJECTS WHOSE TIME ORIENTATION WAS RELATED TO THE FUTURE WOULD BE MORE CAUTIOUS ABOUT CURRENT BEHAVIORS. THESE ARE PERSONS WHO THINK ABOUT THE

CONSEQUENCES OF A POSSIBLE RISKY BEHAVIOR BEFORE ENGAGING IN IT OR PLACING THEMSELVES AT RISK. PERSONS WITH A PERSPECTIVE ORIENTED TOWARDS THE PRESENT OR HERE AND NOW WERE PREDICTED TO BE MORE LIKELY TO ENGAGE IN BEHAVIOR WITH HIGHER SEXUAL RISK.

THE SUBJECTS WERE ALSO GIVEN A QUESTIONNAIRE WHICH ASKED THEM TO IDENTIFY THEIR PARTICIPATION IN A VARIETY OF SEXUALLY RISKY BEHAVIORS. SUBJECTS WERE ASKED TO IDENTIFY THEIR USE OF THESE HIGH-RISK BEHAVIORS AT TWO TIMES: BEFORE THEY LEARNED OF AIDS AND AFTER THEY LEARNED OF AIDS AND ITS MANY RISKS. ALTHOUGH THESE FINDINGS ARE BASED ON SELF-REPORTED BEHAVIOR CHANGE, AND ARE, THEREFORE, SUBJECT TO RECALL ERROR OR INTENTIONAL MISREPRESENTATION, SUBJECTS WERE ASKED TO CAREFULLY CONSIDER THEIR OWN CHANGE IN SEXUAL BEHAVIOR, WHEN THEY REMEMBERED LEARNING OF AIDS, AND IF A DIFFERENCE EXISTED PRIOR TO OR AFTER LEARNING OF THE CONSEQUENCES OF EXPOSURE TO OR INFECTION WITH THE HIV VIRUS.

SUBJECTS WERE 180 UNDERGRADUATE STUDENTS FROM THE OHIO STATE UNIVERSITY. STUDENTS WERE RECRUITED FROM THE INTRODUCTORY PSYCHOLOGY POOL AND WERE GIVEN CREDIT FOR PARTICIPATION. EIGHT SUBJECTS IDENTIFIED THEMSELVES AS BISEXUAL (5 MEN AND 3 WOMEN), AND FIVE IDENTIFIED THEIR SEXUAL ORIENTATION AS EXCLUSIVELY HOMOSEXUAL (4 MEN, 1 WOMAN).

THE SUBJECTS IN THIS STUDY WERE HIGHLY KNOWLEDGEABLE ABOUT AIDS. AT OHIO STATE, THERE IS ONLY ONE COURSE OFFERED WHEREIN AIDS IS EXAMINED INDEPTHLY. THIS IS A ONE-HOUR SEMINAR OFFERED ON AIDS THROUGH THE DEPARTMENT OF HEALTH EDUCATION. NO STUDENT IN THIS STUDY HAD ENROLLED IN OR COMPLETED THIS COURSE. THEIR SOPHISTOCATED KNOWLEDGE ON AIDS CAME FROM OTHER SOURCES. AND ALTHOUGH IT WAS NOT ASKED FROM WHERE THOSE SOURCES CAME, THE STUDENTS COULD CORRECTLY IDENTIFY A VERY LARGE PORTION OF THE AIDS QUESTIONS AS EITHER CORRECTLY TRUE OR CORRECTLY FALSE. THESE CORRECT RESPONSES CAN BE FOUND ON YOUR HANDOUT.

NO STATISTICALLY SIGNIFICANT RESULTS COULD BE EXTRACTED FROM THE TIME ORIENTATION INVENTORY. MORE SUBJECTS OPERATED FROM A FUTURE PERSPECTIVE WHICH IS PROBABLY NOT SURPRISING CONSIDERING THEY ARE IN COLLEGE AND ARE WORKING UNDER A

DELAYED SYSTEM OF GRATIFICATION FOR A BETTER FUTURE. TIME ORIENTATION WAS INSIGNIFICANT FOR ALL VARIABLES.

A T STATISTIC OF -2.03 WAS FOUND TO BE SIGNIFICANT AT THE $P. < .05$ LEVEL. FOR REPORTED SEXUAL BEHAVIOR CHANGES PRIOR TO AND AFTER LEARNING OF AIDS. APPROXIMATELY 80% OF STUDENTS REPORTED THAT THEY WERE SEXUALLY ACTIVE IN THEIR CURRENT SEXUAL BEHAVIORS. TWENTY-NINE PERCENT OF THESE SEXUALLY ACTIVE STUDENTS CHANGED TOWARD SAFER SEXUAL BEHAVIORS. APPROXIMATELY TWELVE PERCENT OF STUDENTS BEGAN SEXUALLY RISKY BEHAVIORS AFTER LEARNING ABOUT AIDS. THIS COULD BE EXPLAINED AS A FUNCTION OF TIME--AFTER LEARNING ABOUT AIDS THEY CONTINUED TO SEEK SEXUAL RELATIONS AND MAY HAVE HAD MORE OPPORTUNITY FOR SEX WHICH THEY TOOK REGARDLESS OF ITS RISK. FOR DIFFERENCES BETWEEN PRE/POST BEHAVIOR CHANGES AND KNOWLEDGE OF AIDS, NO SIGNIFICANT F VALUES OR CHANGES IN R SQUARED WERE FOUND, INDICATING THAT, TO THE DEGREE CHANGES WERE MADE, THE CHANGES IN BEHAVIOR BEFORE AND AFTER LEARNING ABOUT AIDS COULD NOT BE ACCOUNTED FOR OR PREDICTED BY THE INDEPENDENT VARIABLES. ALTHOUGH A CHANGE IN BEHAVIOR BETWEEN THE PERIODS OF TIME BEFORE AND AFTER SUBJECTS LEARNED ABOUT AIDS COULD NOT BE ACCOUNTED FOR BY A PRESENT TIME ORIENTATION, A FUTURE TIME ORIENTATION, OR KNOWLEDGE OF AIDS AS ASSESSED BY A THIRTY-ITEM FORCED-CHOICE QUESTIONNAIRE, THERE WAS A SIGNIFICANT IMPROVEMENT TOWARDS SAFER SEXUAL BEHAVIORS.

TWO STATISTICALLY SIGNIFICANT CORRELATIONS WERE FOUND. OLDER STUDENTS AND MALES AS GROUPS BOTH HAD A HIGHER KNOWLEDGE OF AIDS.

WHAT IS ENCOURAGING ABOUT THESE (BLEAK) DATA ARE THAT AT LEAST SOME STUDENTS HAVE ALTERED THEIR SEXUALLY RISKY BEHAVIOR. HETEROSEXUAL WOMEN ARE MORE LIKELY TO ASK ABOUT THE SEXUAL HISTORY OF NEW PARTNERS AND TO REQUEST A NEW PARTNER WEAR A CONDOM DURING FELLATIO. HOMOSEXUAL AND BISEXUAL MEN, CONSISTENT WITH DATA REPORTED WITHIN THE LARGER GAY POPULATIONS, ALSO DECREASED THEIR SEXUALLY RISKY BEHAVIORS. ALTHOUGH THE VARIABLES TESTED IN THIS STUDY DID NOT SUPPORT THE HYPOTHESES, FOR THIS SAMPLE SOME VARIABLE OR SET OF VARIABLES IS RESPONSIBLE FOR A DECREASE IN SEXUALLY HIGH RISK BEHAVIORS.

WHY DIDN'T IT WORK?

IT IS BELIEVED THAT, UNTIL A MEDICAL IMMUNIZATION AND VACCINE IS FOUND TO STOP THE DESTRUCTION HIV CAUSES, KNOWLEDGE AND EDUCATION ARE THE BEST TOOLS AVAILABLE IN STOPPING, OR, AT LEAST, DETERRING, THE SPREAD OF THE VIRUS. GIVING INFORMATION IS NECESSARY BUT NOT SUFFICIENT TO FACILITATE BEHAVIOR CHANGE. THE STUDENTS IN THIS STUDY HAD A VERY HIGH KNOWLEDGE OF AIDS COMPARED WITH OTHER REPORTED SAMPLES. THEIR KNOWLEDGE OF AIDS DID NOT, HOWEVER, HAVE AN EFFECT ON CHANGING THEIR SEXUAL BEHAVIOR. FOR SOME SUBJECTS RISKY BEHAVIORS ACTUALLY INCREASED. A COGNITIVE UNDERSTANDING OF AIDS IS NOT ENOUGH TO CHANGE STUDENTS' SEXUAL BEHAVIOR ANY MORE THAN "JUST SAYING NO" IS GOING TO STOP THEIR SEXUAL BEHAVIOR.

EDUCATION AND BEHAVIORAL CHANGE PROGRAMS HAVE BEEN REPORTED AS SUCCESSFUL IN THE GAY CULTURES OF CITIES WHICH HOUSE A LARGE PERCENTAGE OF HOMOSEXUAL MEN. BEHAVIORAL CHANGES SEEM TO HAVE BEEN SUCCESSFUL AMONG THESE GROUPS OF MEN. NOT ONLY TO THEY REPORT MORE SAFER SEXUAL BEHAVIORS, BUT THE FREQUENCIES OF SEXUALLY TRANSMITTED DISEASES AND POSITIVE HIV TESTS HAVE ALSO DECREASED. ALTHOUGH A RECENT REPORT BY SEIGAL AND OTHERS (1988) SHOWS THERE ARE SOME HOMOSEXUAL MEN WHO ACTUALLY PARTICIPATE IN SEXUALLY HIGH RISK BEHAVIORS AFTER LEARNING ABOUT AIDS, MOST DO NOT AND ALTER THEIR BEHAVIOR TO DECREASE THEIR CHANCE OF HIV CONTRACTION. ALTHOUGH REPORTED IN SMALL NUMBERS, SIMILAR FINDINGS WERE FOUND AMONG THE MALE STUDENTS IN THIS STUDY WHO IDENTIFIED THEMSELVES AS BISEXUAL OR HOMOSEXUAL.

ALTHOUGH MY HYPOTHESIS THAT A HIGH KNOWLEDGE OF A FATAL VIRUS WOULD DECREASE SEXUALLY HIGH-RISK BEHAVIORS WAS DELUSIONAL, THE FINDINGS FROM THIS STUDY ARE IMPORTANT FOR SEVERAL REASONS. FIRST, IT IS CLEAR THAT STUDENTS HAVE AN UNDERSTANDING OF ACQUIRED IMMUNODEFICIENCY SYNDROME AND THE FATAL CONSEQUENCES IT CARRIES ONCE INFECTED WITH ITS VIRUS. SO, EDUCATION AND MEDIA HYPE HAVE WORKED IN THAT RESPECT. SECOND, ALTHOUGH FOR THIS SAMPLE SEXUALLY HIGH-RISK BEHAVIORS FOR HIV CONTRACTION DID DECREASE, THERE IS CLEARLY MUCH BEHAVIOR THAT PUTS STUDENTS AT RISK FOR AIDS, OTHER SEXUALLY TRANSMITTED DISEASES, AND PREGNANCY. THIRDLY, MANY HEALTH EDUCATORS

AND STUDENT AFFAIRS ADMINISTRATORS ASSUME THAT WHAT IS NEEDED ON THEIR CAMPUSES IS TO EDUCATE STUDENTS ABOUT AIDS. IF STUDENTS KNOW THE CONSEQUENCES OF EXPOSURE TO HIV, THEN SURELY THEY WILL DETER SEXUALLY HIGH-RISK BEHAVIORS. THIS ASSUMPTION IS FAULTY. PERSONS OR GROUPS WHO WANT TO INCREASE MORE RESPONSIBLE OR SEXUALLY SAFER BEHAVIORS NEED TO USE AN APPROACH OTHER THAN ONE WHICH IS PURELY COGNITIVE IN NATURE.

THERE IS NO EVIDENCE THAT SEXUALLY EXPRESSED BEHAVIOR TAKES PLACE AT A HIGH COGNITIVE OR CONCEPTUAL LEVEL. IT APPEARS TO BE MORE CHARACTERISTIC OF A RELATIVELY LOW SENSORIMOTOR BEHAVIOR WHEREIN BEHAVIOR AND EMOTION ARE MESHED. IF THIS IS THE CASE, THEN ATTEMPTS FOR BEHAVIOR CHANGE NEED TO ALSO TAKE PLACE AT THAT SAME LEVEL, NOT AT ONE WHICH IS HIGHLY COGNITIVE.

AT AN INDIVIDUAL LEVEL, CHANGE IN BEHAVIOR CAN OCCUR IF THE CHANGE IS TARGETED DEVELOPMENTALLY AT THE SENSORIMOTOR LEVEL. THIS IS EXEMPLIFIED IN A RECENT ARTICLE BY TANNER AND POLLACK (1988). THEY FOUND THAT THERE WAS AN ATTITUDINAL CHANGE IN COUPLE SUBJECTS WHO INCORPORATED THE USE OF CONDOMS INTO THE FOREPLAY OF THEIR SEXUAL ACTIVITY. COUPLES WHO RECEIVED INSTRUCTIONS TO EROTICIZE CONDOMS BY INCLUDING THEM IN FOREPLAY HELD MORE POSITIVE ATTITUDES TOWARDS CONDOMS THAN COUPLES WHO WERE GIVEN CONDOMS TO USE WITH NO INSTRUCTIONS OR COMPLETE CONTROLS. HERE, THE INTERVENTION WAS TAILORED TO THE SENSORIMOTOR LEVEL.

AT A GROUP LEVEL, CHANGE IN BEHAVIOR CAN OCCUR WHEN GROUP NORMS ARE CHANGED. COLLEGE STUDENTS ARE HIGHLY SUSCEPTIBLE TO THE NORMS OF THEIR PEERS AND, FROM A KOHLBERGIAN PERSPECTIVE, ARE AT A DEVELOPMENTAL STAGE WHERE WHAT IS RIGHT IS DEFINED BY THEIR FRIENDS. IF GROUP NORMS CHANGED REGARDING SAFER SEXUAL PRACTICES, SPECIFICALLY THE USE OF CONDOMS, THEN STUDENTS WOULD BE AT A MUCH LOWER RISK OF ANY PUNITIVE RESULT OF ENJOYING THEIR SEXUALITY AND SEXUAL BEHAVIOR. IN PART, THE SUCCESS OF THE BEHAVIORAL CHANGES AMOUNG HOMOSEXUAL MEN (Morin, 1988), THOSE AT HIGHEST RISK FOR HIV INFECTION, WAS DUE BECAUSE GROUP AND COMMUNITY NORMS WERE CHANGED AND SANCTIONED POSITIVELY RATHER THAN OPPRESSED OR TOLD TO "JUST SAY NO."

IF EDUCATION IS TO BE USED AS A TOOL IN PREVENTING FURTHER INFECTION RATES OF THE HIV VIRUS, THEN IT CANNOT BE USED ALONE AS AN EXPLANATION OR AS A PANACEA FOR CHANGING BEHAVIOR. A MORE COMPLEX APPROACH IS NEEDED WHICH FOCUSES ON DIFFERENT DEVELOPMENTAL GROUPS AND WHICH IS APPROPRIATE FOR CHANGING SEXUAL BEHAVIOR IN PARTICULAR.

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## FREQUENCIES AND PERCENTAGES FOR AIDS TEST

### Total Group (N = 180)

| ITEM | TRUE | FALSE | DON'T KNOW |
|---|---|---|---|
| 1. AIDS is a medical condition in which the body cannot fight off diseases | 92.2(166)* | 4.4 (8) | 3.3 (6) |
| 2. AIDS is caused by a virus | 80.6(145)* | 10.0 (18) | 9.4 (17) |
| 3. AIDS is a condition in which you are born | 7.8 (14) | 88.9(160)* | 3.3 (6) |
| 4. Stress can cause AIDS | .6 (1) | 96.7(174) | 2.8 (5) |
| 5. If you kiss someone with AIDS you can get the disease | 17.8 (32) | 74.4(134)* | 7.8(14) |
| 6. Most gay men have AIDS | 26.1 (47) | 52.2 (94)* | 21.7(39) |
| 7. Touching someone with AIDS can result in getting the disease | 1.7 (3) | 96.7(174)* | 1.7 (3) |
| 8. AIDS can be transmitted from a woman to a man during sex | 96.7(174)* | .6 (1) | 2.8 (5) |
| 9. AIDS can be cured | .6 (1) | 87.2(157)* | 12.2(22) |
| 10. Women are more likely to get AIDS during menstruation (their periods) | 5.0 (9) | 48.3 (87)* | 46.7 (84) |
| 11. Donating blood or plasma makes one at risk for contracting AIDS | 23.3 (42) | 73.3(132)* | 3.3 (6) |
| 12. AIDS has become the number one U.S. killer | 22.2 (40) | 50.0 (90)* | 27.8 (50) |
| 13. Women can receive AIDS by artificial insemination | 20.6 (37)* | 33.9 (61) | 45.6 (82) |
| 14. AIDS is caused by the same virus that causes VD | 3.3 (6) | 71.7(129)* | 25.0 (45) |
| 15. The cause of AIDS is known | 39.4 (71) | 39.4 (71)* | 21.1 (38) |
| 16. Just being around someone with AIDS can give you the disease | .6 (1) | 99.4(179)* | 0.0 (0) |
| 17. If a pregnant woman gets AIDS there's a chance her baby will have it, too | 88.3(159)* | 2.2 (4) | 9.4 (17) |
| 18. Bisexual men are not as likely to get AIDS as are homosexual men | 12.8 (23) | 75.6(136)* | 11.7 (21) |
| 19. People who get AIDS usually die from the disease | 93.3(168)* | 3.3 (6) | .6 (1) |
| 20. Sex can transmit AIDS from one person to another | 99.4(179)* | 0.0 (0) | .6 (1) |
| 21. Receiving blood or blood products accounts for the way most AIDS victims got the disease | 27.2 (49) | 55.6(100)* | 17.2 (31) |
| 22. If you get the AIDS virus you will die of AIDS | 39.4 (71) | 51.1 (92)* | 9.4 (17) |
| 23. Condoms can reduce the risk of AIDS | 94.4(170)* | 2.2 (4) | 3.3 (6) |
| 24. Gay women are at risk for AIDS | 62.8(113)* | 15.6 (28) | 21.7 (39) |
| 25. Despite the news media to the contrary, intravenous needle sharing does not account for as many cases of AIDS as it would seem | 7.8 (14) | 64.4(116)* | 27.8 (50) |
| 26. The reason why most people die of AIDS is because they don't realize they have it; if treated early enough AIDS is not fatal | 4.4 (8) | 81.7(147)* | 13.9 (25) |
| 27. AIDS can be transmitted by mosquitos or domestic pets like cats, dogs, or hamsters | 8.3 (15) | 61.7(111)* | 30.0 (54) |
| 28. Shaking hands or sharing the same drinking cup with an AIDS victim can result in AIDS | 8.9 (16) | 81.7(147)* | 9.4 (17) |
| 29. Vaginal sex is just as dangerous as anal sex for transmitting AIDS | 75.0 (135) | 11.1 (20)* | 13.9 (25) |
| 30. AIDS Related Complex (ARC) is similar to AIDS only people with ARC do not die of AIDS | 23.9 (43) | 13.3 (24)* | 62.8 (113) |

* Asterisk denotes correct response
Actual Frequencies are in parentheses